Figure 9900

DN50-DN500 PN10-16-25

Vacuum Breaker Valve

DESCRIPTION

The automatic air inlet valve (adductor valve) allows entrance and emissions of large quantities of air during pipe emptying or depressions in water pipelines.

These vacuum relief valves shall be normally closed by means of a spring and open automatically only when the system pressure become negative, falling to approximately 0,02 bar below atmospheric pressure. The immediate admission of air into the system valve shall be assured by having 10% more inflow area than the inlet area of the valve, preventing then from vacuum and limiting the vacuum pressure to the one calculated for the system.

The double-sealing design (metal-metal and resilient) provides a "drop-tight" shut-off.

The air inlet valve incorporates a stainless steel screen and steel hood to avoid the entry of foreign particles.

Fluid

Clean water, consult operations and materials for ocean water, and processed crude water

CONSTRUCTION MATERIALS / COATING

Body : Ductile Iron EN GJS-500-7
Internal Mechanisms: Stainless steel and bronze
Seat: Elastomer NBR/EPDM of high durability
Upper protection: Steel with screen in stainless steel.
Bolting: Internal in stainless steel A2 / External in galvanized steel
Coating: Non-toxic epoxy for drinkable water. Internal and external 200 microns thickness

Other material and special coating available upon request

TECHNICAL DATA / ENGINEERING

AERATION CAPABILITIES

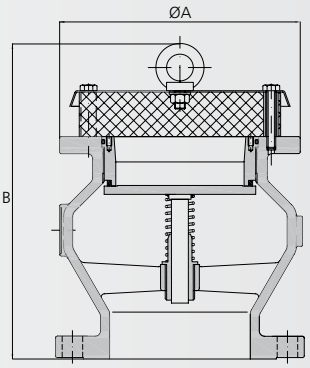
BIG ORIFICE (FILLING / EMPTYING)
See tables for aeration capacity and curves in page 30.

TEST PRESSURE

TEST PRESSURE	BODY	SEAT
PN 10	15 bar	11 bar
PN 16	24 bar	18 bar
PN 25	38 bar	28 bar

GENERAL DIMENSIONS AND WEIGHTS

DN	Connection	A	B	Weight
DN50	Flange	152	185	10
DN80	Flange	200	190	14
DN100	Flange	220	292	25
DN150	Flange	285	388	53
DN200	Flange	343	520	85
DN250	Flange	426	600	99
DN300	Flange	510	645	122
DN350	Flange	560	675	177
DN400	Flange	624	855	262
DN500	Flange	772	1.042	350



Dimensions in mm and weights in kg

Connections: PN10-16-25s/EN-150 # s/DIN

ORDERING OPTIONS

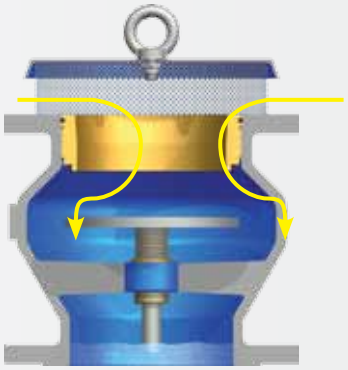
- Lateral drain valve
- Possibility to supply the valve with lateral drain valve (Fig. 9920).

FULFILLED STANDARDS

- EN 1074-1 & EN 1074-4
- AWWA C512

SEQUENCE OF FUNCTIONS

The valve will open when a water depression is detected due to drainage streams, fracture in the pipes, etc.



The valve will be closed during the filling and installation works.

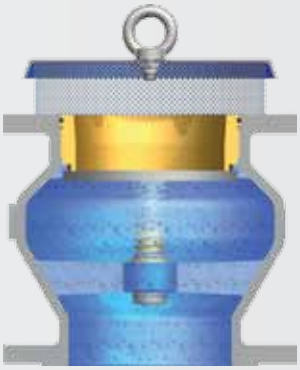


Figure 9920

DN80-DN500 PN10-16-25

Vacuum Breaker Valve with Air Release Valve

Combination valve (Fig. 9900 + Fig. 9120/9200/9220/9230…)

CONSTRUCTION MATERIALS / COATING

Body: Ductile Iron EN GJS-500-7

Internal Mechanisms: Stainless steel and bronze

Seat: Elastomer NBR/EPDM of high durability

Upper protection: Steel with screen in stainless steel

Bolting: Internal in stainless steel A2 / External in galvanized steel

Coating: Non-toxic epoxy for drinkable water. Internal and external 200 microns thickness

Other material and special coating available upon request

DESCRIPTION

The combined air inlet valve with air release valve will open automatically when the system pressure becomes negative falling down and below the atmospheric pressure and will close when the pressure inside the piping is restored. This allows to release small quantities of air cumulated in the system when the pressure is low.

The valve is formed by two independent valves, one air inlet valve or vacuum breaker and an automatic air release valve, mounted and assembled together as a whole and sole element.

The immediate admission of air into the system valve shall be assured by having 10% more inflow area than the inlet area of the valve.

The vacuum relief valve is normally closed by means of a spring and will open automatically only when the system pressure become negative, falling to approximately 0,02 bar below atmospheric pressure.

Fluid

Clean water, consult operations and materials for ocean water, and processed crude water

TECHNICAL DATA / ENGINEERING

NOTE: The drain valve used for this valve till DN 150 is Fig. 9120 and Fig. 9200 for higher size valves.

AERATION CAPABILITIES

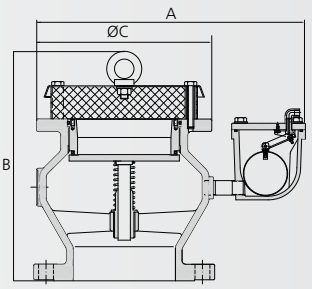
BIG ORIFICE (FILLING / EMPTYING)
See tables for aeration capacity and curves in pages 30 and 31.

TEST PRESSURE

	BODY	SEAT
PN 10	15 bar	11 bar
PN 16	24 bar	18 bar
PN 25	38 bar	28 bar

GENERAL DIMENSIONS AND WEIGHTS

DN	Connection	A	C	B	Weight
DN80	Flange	385	188	290	19
DN100	Flange	476	254	292	43
DN150	Flange	430	300	360	56
DN200	Flange	595	360	455	80
DN250	Flange	585	425	542	114
DN300	Flange	662	485	531	175
DN350	Flange	700	555	575	374
DN400	Flange	780	620	735	478
DN500	Flange	885	715	1042	560



Dimensions in mm and weights in kg Fig. 9900 + Fig. 9200

Connections: PN10-16-25s/EN-150 # s/DIN

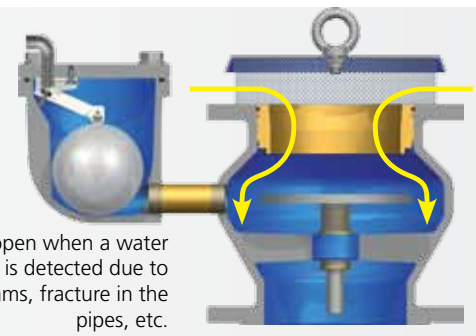
ORDERING OPTIONS

- Lateral drain valve
- Possibility to supply the air release valve according to different requirements.

FULFILLED STANDARDS

- EN 1074-1 & EN 1074-4
- AWWA C512

SEQUENCE OF FUNCTIONS



The valve will open when a water depression is detected due to drainage streams, fracture in the pipes, etc.

The valve will remain closed during the filling and installation works and in addition will release possible air pockets.